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**From:** Elson [el\_silva@uol.com.br]  
**Sent:** Wednesday, May 03, 2006 6:30 PM  
**To:** email  
**Cc:** lortiz@olpatentlaw.com; klopez@olpatentlaw.com; 'Elson'  
**Subject:** US 2004/0151961 - Requesting IDS of US 6,766,817 for patenteability

**CONTACT US**

**Antonelli, Terry, Stout & Kraus, LLP**  
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**WILLIAM L. SOLOMON, PARTNER**

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Dear Mr. Solomon,

Patent **US 6,766,817** is an invention with broad effect on general **HYDROLOGY** (Unsaturated Hydraulic Flow) revealing new conceptions not yet discussed by regular Technical-Scientific literature. (p. 28 line 9: '*A variety of commercial hydrology applications can be implemented in accordance with one or more embodiments.*')

**US 6,766,817 'Fluid conduction utilizing a reversible unsaturated siphon with Tubarc porosity action'** Jul 27, 2004 by Elson Silva assigned to Tubarc Technologies, LLC.

Under the **IDS 37 CFR § 1.56** (d) I request you to refer "**Silva, 2004 US 6,766,817**" to the USPTO so that it is used as reference in the examining process of the following Patent Application below:

**US 20040151961 'Sheet-like chemical cell, fuel cell and methods for manufacturing thereof'** August 5, 2004 by Morishima, Makoto ; et al. assigned to **HITACHI, LTD.**.

*For patent applications filed under 35 U.S.C. § 111(a), applicants and other individuals who are substantively involved in preparing or prosecuting a patent application must submit to the Office information which is material to patentability (could render a claim unpatentable) as defined in 37 CFR § 1.56. The provisions of 37 CFR § 1.97 and 37 CFR § 1.98 provide a mechanism for compliance with the duty of disclosure provided in 37 CFR § 1.56.*

**§ 1.98 Content of Information disclosure statement.**

- (i) *A concise explanation of the relevance, as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. The concise explanation may be either separate from applicant's specification or incorporated therein.*

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**Relevance of US Pat. 6,766,817 to fill out the IDS form:**

"US pat. 6,766,817 reveals new conceptions in hydrodynamics for fluid conduction/retention

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suggesting 'capillary action' be replaced by 'tubarc action' correcting flaws associated to tube theory of fluids moving on random porosity. The appropriate technical expression of fluids moving through porosity is Unsaturated Hydraulic Flow by Hydrological Sciences. Wick etymology is associated to fuel moving toward flames on oil lamps restraining advanced development of general hydrodynamic functioning. An enhanced porosity with connected voids is revealed at US 6,766,817 allowing higher control on hydrodynamic properties like: fluid supply on demand, molecular drainage, molecular filtering, adjustable fluid matrix potential, molecular connectivity on mass flow, adjustable ratio of porosity void displacement for solid:liquid:air, and enhanced unsaturated hydraulic flow with anisotropy for a broad range of fluid application devices (Soil Physics and/or Hydrogeology)."

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The Patent Application above contains any of the words search wick, wicking, capillary action, or capillarity in such an importance that may become unpatentable according to the claims at US 6,766,817. Then, it is my request that Silva, 2004 US 6,766,817 be mentioned in the reference list if patented letting the Patent Examiner clears the pending granted novelty according the Law.

I would suggest the applicant party consulting with experts in Soil Physics and/or Hydrogeology PhDs for a deeper comprehension on the Issue in order to get appropriate technological assessment dealing with Hydrology on Porous Systems.

Please, let me know if I can be of any further assistance regarding the subject.

Kind regards,

**Elson Silva, Ph. D.**  
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*(All U.S. applications [1] filed after June 30, 2003 are stored in electronic form in the Office's Image File Wrapper (IFW) system. [2] IDSs submitted for these electronic applications are processed by Office staff to create an electronic link which permits cited U.S. patents and U.S. patent application publications to be conveniently viewed by examiners through the Office's patent search system.)*

#### § 1.56 Duty to disclose information material to patentability. - PATENT RULES

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the

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patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

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(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) ~~Individuals other than the attorney~~, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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